

REMARKS

This paper is being provided in response to the office action for the above-referenced application dated January 21, 2000. In this response, Applicants have canceled claims 56 and 57, and have amended claims 1- 24 in order to more particularly point out and distinctly claim that which Applicants deem to be the invention. Applicants respectfully submit that the amendments to the claims are all supported by originally-filed application.

The rejection of claims 1-24 under 35 U.S.C. §102 (a) as being anticipated by or, in the alternative, under 35 U.S.C. § 103 (a) as being unpatentable over Williams et al. is hereby traversed and reconsideration thereof is respectfully requested in view of amendments to the claims contained herein. The rejection of claims 56 and 57 has become moot by canceling these claims.

Independent claim 1, as amended herein, is directed to a method for manufacturing a magnetic tape. The method includes providing a spool of magnetic tape having a magnetic recording surface and a non-recording side opposite the recording side, unwinding the spool to pass at least a portion of the magnetic tape through a work area, and marking the non-recording side of the portion of the magnetic tape as the tape passes through the work area to form an optically detectable servo pattern thereon.

Williams (U.S. Patent 5,120,927) discloses a method for inscribing a plurality of indelible grooves in a surface of magnetic information storage media. The method involves rotating the medium under the focused light beam to inscribe the grooves on the surface of the medium. Williams describes the medium as consisting of, for example, a metal substrate coated with a magnetic layer on one or both sides. A plurality of non-inscribed regions exist on each face of the cylinder, with one non-inscribed region lying between every two adjacent grooves. Information can be stored on the non-inscribed regions while the grooves can be used as optical servo tracks. Fig. 6 of Williams shows an arrangement for inscribing a magnetic tape 144. As

further seen from Fig. 6 and in greater detail also from Fig. 4, the grooves are inscribed on the same side of the disk or tape that also carries the magnetic recording medium.

As mentioned above, Williams discloses that the grooves can be inscribed on either one side or on both of the faces of the medium. It is known in the prior art to record information on floppy disks or hard disks on both sides of the disks. However, there is no reference in the prior art to record of a successful application of optical servo tracks on the non-recording side of magnetic tape, i.e., the side opposite to the side that includes the magnetic recording tracks. More particularly, none of the cited art shows data, magnetically or otherwise, being recorded on both sides of a magnetic tape. Unlike magnetic storage disks where the two recording surfaces on opposite sides of the disk are spaced apart by several tenths of millimeters, and surfaces of different disks never make contact with each other, magnetic tape is wound onto a reel so that in conventional tapes, the magnetic recording surface of one wound layer is in direct contact with the non-recording surface of the next wound layer. Accordingly, if magnetic recording layers were to be placed on both sides of the tape, unacceptable crosstalk would likely result. For this reason, magnetic recording tracks, or for that matter magnetic servo tracks, have not been successfully placed simultaneously on the two opposite sides of the magnetic recording tape. Applicants were first to realize that optically detectable servo tracks can advantageously be placed on the non-recording side of the tape without adversely affecting the magnetic tracks recorded on the opposite recording side of the magnetic tape and were also first to develop a working embodiment of a linear tape recorder using an optically detectable servo pattern disposed on the non-recording side of the tape. With this arrangement, the servo tracks do not take up additional space on the recording side of the tape, thereby increasing the overall magnetic data storage capacity of the tape.

Applicants submit that the rejection of claim 1 under 35 U.S.C. 102(a) as anticipated by Williams is improper since Williams does not disclose, teach or suggest marking the non-recording side of the portion of the magnetic tape as the tape passes through the work area to form an optically detectable servo pattern thereon, as recited in claim 1. Applicants further submit that the rejection of claim 1 under 35 U.S.C. 103(a) as obvious over Williams appears to

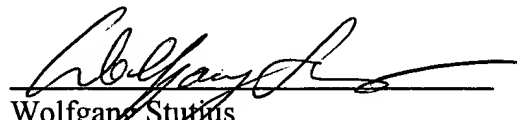
be hindsight, since there is no suggestion in the Williams reference that servo tracks can be successfully placed on the non-recording side of the tape, and the method of providing an optically detectable servo pattern on the non-recording side of the portion of the magnetic tape, as recited in claim 1 is obvious only after Applicants successfully developed their working example of a magnetic tape. Accordingly, Applicant respectfully requests that the rejection of claim 1 be withdrawn. Claims 2-24 which depend from claim 1 and recite additional subject matter, should also be allowable for the same reason that claim 1 is allowable.

Based on the above amendments and remarks, Applicants respectfully request that all objections and rejections be withdrawn. Favorable consideration and allowance are earnestly solicited. Should there be any questions after reviewing this paper, the Examiner is invited to contact the undersigned at 617-832-1753.

Respectfully submitted,
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